

ABSTRACT

DRUG UTILIZATION STUDY IN PEDIATRIC PNEUMONIA PATIENTS WITH CONGENITAL HEART DISEASE (Study at Dr. Soetomo Surabaya)

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Background: Acyanotic Congenital Heart Disease with left to right shunt had increased risk of respiratory tract infections. Acute respiratory tract infection, especially pneumonia is the most common infection in the children. Pediatric pneumonia patients with acyanotic CHD need multiple medication consisting antibiotic, drug for heart failure and other supportive medication. The patient also have low organ perfusion occurs at the site of clearance (e.g. liver and kidney) consequently, there will be changes in clearance of drug. The risk of drug problems related to potential drug interaction and side effects will increase.

Objective: To analyze drug utilization based on type, dose, route of administration, and frequency of medication. As well as to identify drug problems related to potential drug interaction and drug side effects.

Method: Study was carried out of pediatric pneumonia with acyanotic CHD inpatient during period 1 January 2017 to 31 Desember 2017. Data was collected retrospectively.

Result: The result showed that out of 33 patients that include in this study, the majority was patients with less than 1 year of age. The most commonly antibiotic treatment was a combination of ampicillin and gentamicin (75,7%). Ampicillin IV 100-200 mg/Kg/day taken 4 times a day. Gentamicin IV 5-8 mg/Kg/day taken once a day. The distribution of other antibiotic used in this study was ceftriaxone IV 50-100 mg/Kg/day taken in twice a day (24,2 %), ampicillin IV (12,1%), and cefotaxime IV 100-150mg/Kg/day taken in 3 times a day. The supportive therapies of pneumonia were oxygen, infusion, paracetamol, salbutamol and NaCl 0,9% nebuliser. Potential interaction was found in 10 patients (30,3%) and actual side effects was not found.

Conclusion: The medication based on type, dose, route of administration, and frequency were in accordance for the clinical practice guidelines of the hospital.

Keywords: Pneumonia, Acyanotic CHD with left-to-right shunt, pediatrics, drug related problems, drug utilization study.